Unit 7
Problem Solving with Length, Money, and Data

Grade 2
Math

Description: Students practice addition and subtraction strategies within 100 and problem-solving skills with money, measurement, and data. Students will measure and estimate length in the context of units from both the customary system (e.g., inches and feet) and the metric system (e.g., centimeters and meters). As they study money and length, students represent measurement and money data using picture graphs, bar graphs, and line plots.

Louisiana Student Standards for Mathematics (LSSM)
Instructional Outcomes

Major Cluster: MD – Measurement and Data	
2.MD.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
2.MD.2	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
2.MD.3	Estimate lengths using inches, feet, centimeters, and meters.
2.MD.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
2.MD.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
2.MD.6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, …, and represent whole-number sums and differences within 100 on a number line diagram.
2.MD.9	Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
2.MD.10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.
Operations and Algebraic Thinking	

2.OA.A.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
Number and Operations in Base Ten	
2.NBT.5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Enduring Understandings:

- Measurement is a way to describe and compare objects or ideas. A specific process is used to measure attributes.
- Standard measurement allows us to communicate with others to describe the physical world.
- Measurement is a consistent duration and distance.
- The length of objects can be measured using customary units or Metric units.
- A reasonable estimate is one that is close to the actual measurement.
- Line plots are useful tools for collecting data because they show the number of things along a numeric scale.
- We collect and use data to help us answer questions and make decisions.

Essential Questions:

- What properties can be measured (length, height, volume, width, area, weight, time, money and temperature)?
- How do we measure (unit, tool, and process)?
- What standard units are necessary?
- How do we use different types of measurements?
- What are tools of measurement and how are they used?
- When should you estimate? When do you need an exact answer? What makes a useful estimate?
- What information can we gather from data, charts, and graphs?
- How do we conduct a survey?
- How can we gather and organize data?
- How can we represent the data we gather?